

In the Claims:

1. (Currently Amended) A private communications network comprising:

an end system configured to communicate with a remote system via a network separate from the private communications network, the end system configured to communicate in at least a voice stream mode and a data stream mode;

~~a distributed address translation mechanism comprising:~~

a first plurality of network application servers ~~server~~ configured to receive a voice stream ~~[[call]] request [[from]] sent by the end system, the first each of the network application servers~~ server including a ~~different first~~ pool of addresses associated with ~~different types of data stream~~ stored in a first ~~[[an]]~~ address mapping table, ~~wherein the different types include at least one of voice, data and multimedia streams and the network application servers are and configured to generate a first at least one address mapping responsive thereto to the voice stream request;~~

a second network application server configured to receive a data stream request sent by the end system, the second network application server including a second pool of addresses stored in a second address mapping table, and configured to generate a second address mapping responsive to the data stream request, wherein the second pool of addresses differs from the first pool of addresses; and

a packet modifier device, separate from the first and second network application server ~~servers~~ and configured to receive the first address mapping from the first network application server when the end system sends the voice stream request and the second address mapping from the second network application server when the end system sends the data stream request, and to use the received address mapping the at least one address mapping from the plurality of network application servers to map communication packets from the end system for transmission on the separate network, wherein the first network application server and the second network application server are not in a path of the communication packets.

2. (Currently Amended) The private communications network of claim 1, wherein:

the end system is configured to communicate with the remote system by sending the communication packets to the packet modifier device; and

the packet modifier device is configured to map the communication packets from the end system by substituting at least one of source and destination addresses in the packet communication packets according to the received address mapping ~~from one of the plurality of network application servers.~~

3. (Currently Amended) The network of claim 2, wherein the packet modifier device is configured to substitute at least a source address in the communication packet packets.

4. (Currently Amended) The network of claim 1, wherein the first and second [[each]] network application ~~server is~~ servers are configured to provide the first address mapping and the second address mapping, respectively, at least one address mapping to the packet modifier device via a command according to a predetermined protocol.

5-9. (Cancelled).

10. (Currently Amended) A method of mapping packets in a communication network, the method comprising:

allocating a first pool ~~different pools~~ of addresses to a ~~plurality of first~~ address mapping ~~table~~ tables associated with a first network application server, the first network application server adapted to provide an address mapping from the first pool of addresses to a packet modifier device upon a request from an end system to establish a voice stream with a remote system associated with a separate network distributed in the communication network, the pools of addresses including at least one of voice, data and multimedia pools;

allocating a second pool of addresses to a second address mapping table associated with a second network application server, the second network application server adapted to provide an address mapping from the second pool of addresses to the packet modifier device upon a request from the end system to establish a data stream with the remote system;

receiving, by the first network application server, a voice call request from the end system to establish the voice stream between the end system and the remote system;

providing, by the first network application server, a first address mapping to the packet modifier device in response to the voice call request;

~~requesting establishment of a communication session between an end system connected to the network and a remote system connected to a separate network;~~

~~using a distributed address translation mechanism to identify an address mapping for accessing the remote system, the distributed address translation mechanism including a network application server and a separate packet modifier device, wherein the a network application server performs the steps of accessing one of the plurality of mapping tables to obtain address mapping data, wherein the one of the plurality of mapping tables is selected according to a pool of addresses associated with the communication session;~~

~~and determining an address mapping of at least one of the end system and the remote system based on the address mapping data for forwarding to the separate packet modifier device~~ ; and

modifying, at the packet modifier device, a plurality of voice packets sent from ~~one of the~~ end system to ~~[[and]] the remote system to the other~~ according to the first address mapping, wherein the first network application server and the second network application server are not in a path of the voice stream.

11. (Currently Amended) The method of claim 10, wherein modifying the plurality of voice packets includes modifying the plurality of voice packets by substituting addresses of the plurality of voice packets corresponding to the end system.

12. (Cancelled).

13. (Currently Amended) The method of claim 10, wherein providing the first address mapping to the packet modifier device in response to the voice call request further comprises providing comprising using the network application server to communicate the first address mapping to the packet modifier device in response to the voice call request via a command protocol.

14-22. (Cancelled).

23. (New) A packet modifier device associated with a first communications network, comprising:

- a communications interface configured to communicate with the first communications network;

- a processor coupled to the communications interface and configured to:

- receive a first address mapping from a first network application server upon a request by an end system associated with the first communications network to establish a voice stream with a remote system associated with a second communications network, the first address mapping based on a first pool of addresses maintained by the first network application server;

- receive a second address mapping from a second network application server upon a request by the end system to establish a data stream with the remote system, the second address mapping based on a second pool of addresses maintained by the second network application server, wherein the second pool of addresses is different from the first pool of addresses;

- map a stream of voice packets from the end system destined for the remote system in accordance with the first address mapping; and

- map a stream of data packets from the end system destined for the remote system in accordance with the second address mapping, wherein the first network application server and the second network application server are not in a path of either the voice packets or the data packets.